

**CONFIDENTIAL**VIA: ATR  
(SPECIFY AIR OR SEA POUCH)DISPATCH NO.  

50X1

**SECRET**  
CLASSIFICATION

TO : Chief, KUCLUB

DATE: 6 JAN 1955FROM : Chief,  

50X1

SUBJECT: GENERAL— Engineering/Operational

SPECIFIC— Project   - Operational Recordings

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REFERENCES: A.    
B.  

DOC <u>15</u>	REV DATE <u>26/3/80</u>	BY <u>37/69</u>
ORIG COMP <u>33</u>	OPI <u>56</u>	TYPE <u>50X1</u>
ORIG CLASS <u>5</u>	PAGES <u>2</u>	REV CLASS <u>C</u>
JUST <u>22</u>	NEXT REV <u>2010</u>	AUTH: HR 70-2

1. Enclosed are four tapes as requested. Unfortunately, these are the only tapes available at the present time. All others have been turned over to  

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2. It should be noted that the contacts prior to July 1954 used the original keying system and subsequent ones used the system described in  . Therefore, two different types of keying <sup>are</sup> illustrated in the enclosed tape recordings.

3. Receiver settings for these particular recordings are not available. We have received suggestions from   in July, however, relative to appropriate receiver adjustment to provide most readily transcribable recordings:

"A. Operator should zero beat lower end of signal with BFO on zero.

B. After zero beat obtained, turn BFO in RSU position about 2 KCS away from signal".

Additional comment on receiver adjustment is offered: (1) AVC should be off, (2) limiter off if not needed, (3) filtering devices should not be used to the point where the characters become elongated, such as sharp crystal.

4. Considerable thought has been given to the problem of base equipment for quick and simple transcription of the recording, or a means to determine that a suitable recording has been made. First of all, as indicated in reference B, these recordings obtained by intercept cannot be considered comparable to those which would be obtained on a circuit under our control. We can assume that signal conditions would be much more favorable for our own circuits. This in itself will tend to simplify the problem of recovery. Another consideration of course, would be the use of matched receiving crystals for the base station.

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5. Briefly, a system which we feel would meet all the necessary requirements for efficient operation of a circuit up to 500 or 600 words per minute would include the following design considerations.

- A. Transmitter: crystal controlled FS Keying (the amount of frequency shift should be no more than necessary for keying frequency).
- B. Receiving:
- (1) Diversity reception with common crystal oscillator fed to FS converter.
  - (2) Keyed tone output of converter feeds to (a) tape undulator or page recorder, (b) magnetic tape recorder, (c) visual indicator device.

The visual device would be a scope containing a persistence circuit which would permit the base operator to scan the received signal so that he would immediately know whether he had received good copy. This would result in a considerable saving of agent time-on-air.

6. Please advise of any further data you may desire.

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29 December 54

Encl: 4 tape recordings

- (1) 15 Dec 53
- (2) 9 April 54
- (3) 25 August 54
- (4) 25 Sept 54

Dist: 3 - KUCLUB w/4 recordings

- 1 - ☐ Ops
- 1 - ☐ Chrono.

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